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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,990	04/30/2001	John L. Levenda	38190/209224	2934

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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,990

Applicant(s)

LEVENDA, JOHN L.

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 - 12 and 17 – 24, drawn to a decorative laminate, classified in class 442, subclass 288.
 - II. Claims 13 - 16, drawn to a method for making a durable decorative laminate, classified in class 101, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as rotary printing.
3. During a telephone conversation with Scott Young on October 21, 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1- 12 and 17 – 24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13 – 16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

4. Claim 10 is objected to because of the following informalities: Please remove the phrase “(any more?)” from the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 - 12 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claim 1, the position of the protective layer in relation to the substrate and embossable layer is unclear. Is the protective layer adjacent to the substrate layer or the embossable layer?

8. Claim 23 recites the limitation “the woven fiber material” in line 1. There is insufficient antecedent basis for this limitation in the claim. Please replace the phrase with “a woven fiber material”. The remaining dependent claims, claims 2 – 12, are rejected as being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. Claims 1, 5 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoey (US 3,891,487).

As to claims 1 and 12, Hoey teaches a decorative laminate (Title). The laminate comprises a textile backing, a crushed thermoset plastic foam bonded thereto and a transparent polymeric film. The textile backing, or “substrate layer”, can be made of a suitable woven material (column 5, lines 15 – 20). The crushed thermoset plastic foam, or “embossable layer”, is bonded to the textile backing and can contain pigments or dyes (claim 6). The “embossable layer”, even after being crushed, has sufficient resilience to be embossed with a patterned roller (column 4, lines 52 – 53). The transparent polymeric film, or “protective layer”, can be a thermoplastic film such as Tedlar, a polyvinyl fluoride, as required by claims 1 and 12.

As to claim 5, Hoey teaches that the textile backing, or “substrate layer”, can comprise fiberglass (column 5, lines 15 – 20).

11. Claims 17 – 18, 20, 22 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Gleim (US 5,976,671).

As to claims 17, 20 and 24, Gleim teaches a decorative laminate (See Figure 3). The printed laminate (40) comprises a textured layer (32), a structural layer (34), adhesive containing layer (36), printed layer (42) and capping layer (44). The textured layer, or “embossable layer”, is comprised of a melt processable thermoplastic material which can adopt texture imparted by a texture media (column 5, lines 12 – 16). The printed layer, or “ink layer”, can include ink or toner. The ink or toner in the printed layer is deposited on the textured layer by a screen, electrostatic transfer, ink jet and gravure processes (column 6, lines 15 – 20), therefore, the

embossable layer will have at least one same color as found in the “ink layer”. The capping layer, or “partially transparent layer”, is comprised of a thermoplastic fluorinated polymer film such as PVF (polyvinyl fluoride) or PVDF (polyvinylidene fluoride) which is naturally partially transparent (column 6, lines 10 – 27) as required by claims 17, 20, and 24.

As to claim 18, Gleim teaches that due to the transfer of ink or toner from the “ink layer” to the “embossable layer”, the predominant color of the “ink layer” will be the predominant color of the “embossable layer”.

As to claim 22, Gleim teaches that the textured layer, or “embossable layer”, can include polyurethane (column 5, lines 29 – 30).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoey (US 3,891,487) in view of Gleim (US 5,976,671).

Hoey fails to teach that the laminate can further comprise an ink layer between the “embossable layer” and the “protective layer”.

Gleim teaches a decorative laminate (Figure 3) comprising a textured layer (32), a structural layer (34), adhesive containing layer (36), printed layer (42) and capping layer (44) (column 10 – 28). The printed layer, or “ink layer”, can include ink or toner. The “ink layer” is

situated between the textured layer, or “embossable layer”, and the capping layer, or “protective layer”. The ink or toner in the printed layer is deposited on the textured layer by a screen, electrostatic transfer, ink jet and gravure processes (column 6, lines 15 – 20), therefore, the embossable layer will have at least one same color as found in the “ink layer”. Gleim teaches that due to the transfer of ink or toner from the “ink layer” to the “embossable layer”, the predominant color of the “ink layer” will be the predominant color of the “embossable layer”.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add an “ink layer” to the laminate of Hoey as suggested by Gleim motivated by the expectation to create an aesthetically pleasing laminate.

14. As to claims 6 – 9, Hoey in view of Gleim discloses the claimed invention except for the that the embossable layer has a thickness between 2 – 8 mils as required by claim 6 or between 4 – 6 mils as required by claim 7 and that the protective layer has a thickness between 0.2 – 1.5 mil as required by claim 8 or between 0.5 – 0.9 mil as required by claim 9. It should be noted that the thickness of the embossable and protective layers are result effective variables. As the thickness of the embossable and protective layers decrease, the laminate becomes more pliable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a laminate with an embossable layer with thickness between 2 – 8 mils as required by claim 6 or between 4 – 6 mils as required by claim 7 and protective layer with a thickness between 0.2 – 1.5 mil as required by claim 8 or between 0.5 – 0.9 mil as required by claim 9, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention,

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one would have been motivated to have the specified thicknesses of the embossable layer and the protective layer in order to have a flexible yet rigid laminate.

15. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoey (US 3,891,487) in view of Piacente et al. (US 5,858,160).

Hoey teaches that the crushed, thermoset plastic foam layer, or “embossable layer”, comprises an acrylic polymer (column 1, lines 53 – 55), but fails to teach that the “embossable layer” can be comprised of an epoxy, polyester, phenol or combination thereof. Also, Hoey fails to teach that the substrate material is embedded in a resin matrix.

Piacente teaches a decorative surface covering (Title) comprising a foamable layer (80) and non-foamable layer (70) (See Figure 2b and column 15, lines 8 – 20). The foamable layer, or “embossable layer”, can comprise a wide variety of resins such as acrylates, phenolic or polyester (column 5, lines 38 – 42). The non-foamable layer, or “substrate layer”, can comprise a woven material made of glass which may be impregnated with a strengthening impregnant (column 4, lines 1 – 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create use the epoxy “embossable layer” of Piacente in the laminate of Hoey motivated by the expectation that the use of an acrylic resin is interchangeable with a phenolic or polyester resin as suggested by the list of possible resins for use in a decorative laminate in the Piacente et al. patent.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an impregnated woven glass material as the substrate in the laminate of Hoey motivated by the expectation to further strengthen the substrate.

16. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gleim (US 5,976,671) in view of Piacente et al. (US 5,858,160).

Gleim fails to teach that the structural layer can contain a woven material embedded within the PVF material (column 8, lines 55 – 60).

Piacente teaches a decorative surface covering (Title) comprising a foamable layer (80) and non-foamable layer (70) (See Figure 2b and column 15, lines 8 – 20). The non-foamable layer, or “substrate layer”, can comprise a woven material made of glass which may be impregnated with a strengthening impregnant such as a thermoplastic resin (column 4, lines 1 – 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to embed a woven material in a thermoplastic structural layer of Gleim as suggested by Piacente motivated by the expectation to further strengthen the structural layer creating a more durable laminate.

17. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleim (US 5,976,671) in view of Hoey (US 3,891,487).

Gleim fails to teach that the structural layer comprises a woven material disposed upon

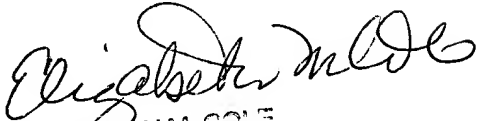
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the embossable layer opposite the ink layer. Gleim fails to teach that the woven material is made from glass, aramid, carbon or Kevlar fibers.

Hoey teaches a decorative laminate (Title) comprising a textile backing, a crushed thermoset plastic foam bonded thereto and a transparent polymeric film. The textile backing, or “substrate layer”, can be made of a suitable woven material (column 5, lines 15 – 20), which can be made of fiberglass (column 5, lines 15 – 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a textile backing made of fiberglass as a substrate layer as suggested by Hoey in the laminate of Gleim to create a durable and high in strength laminate.

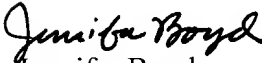
It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an impregnated woven glass material as the substrate in the laminate of Hoey motivated by the expectation to further strengthen the substrate.


ELIZABETH M. COLE
PATENT EXAMINER

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jennifer Boyd
February 20, 2003